

REMARKS

Claims 1-20 are all of the claims presently pending in the application. Claims 1, 3-10, 12 and 14 have been editorially amended to more clearly describe the claimed invention. Claims 16-20 have been added to provide more varied protection for the claimed invention and to claim additional features of the invention.

It is noted that the claims amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims, or for any statutory requirements of patentability. Further Applicants specifically state that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1-6, 8, 10, 12 and 13 stand rejected under 35 U.S.C. § 102(b) as being anticipated by JP 07-064349 (hereinafter "JP '349"). Claims 7, 9, 11, 14 and 15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by JP 2002-129063 (hereinafter "JP '063").

I. THE CLAIMED INVENTION

The claimed invention (e.g., as defined by exemplary claim 1) is directed to an electrophotographic toner. The toner includes a fixing resin and a colorant. The electrophotographic toner includes a black toner using a titanium compound having no carbon black as the colorant (e.g., see Application at page 3, lines 2-21). This combination of features is important for providing a toner paying more attention to environment and safety while also being fixed at a low temperature with increased speed and reduced fixing energy (see Application at page 2, lines 9-25).

II. THE PRIOR ART REJECTIONS

A. The JP '349 Reference

The Examiner alleges that JP '349 teaches the claimed invention of claims 1-6, 8, 10, 12 and 13. Applicants submit, however, that JP '349 does not teach or suggest each and every feature of the claimed invention.

That is, JP '349 does not teach or suggest "*wherein said electrophotographic toner comprises a black toner using a titanium compound comprising no carbon black as said colorant*" as recited in claim 1 (and similarly recited in claim 12).

The Examiner does not specifically point out which portions of JP '349 he is relying upon to support his allegation. Instead, the Examiner merely refers to the entire disclosure of JP '349. The Examiner, however, is clearly incorrect.

That is, nowhere does JP '349 teach or suggest that the electrophotographic toner includes a black toner using a titanium compound including no carbon black as the colorant. Indeed, the Examiner does not even allege that JP '349 teaches or suggests this feature. The Examiner merely alleges that JP '349 teaches using titanium oxide as a black colorant.

In the case of a toner using a titanium compound or magnetic iron oxide as a colorant, electrostatic charge may be accumulated to increase the quantity of electrostatic charge. Carbon black has good electrical conductivity and has an effect of maintaining the stability of the electrostatic charge. However, Applicants have recognized that carbon black may not be environmentally safe.

Thus, the claimed invention provides an electrophotographic toner including a black toner using a titanium compound including no carbon black as the colorant. The toner of the

claimed invention provides colorability, fixing characteristic and stable printing equivalent to those obtained using a conventional toner having carbon black as a colorant (see Application at page 45, line 23 through page 46, line 4). This feature is clearly not taught or suggested by JP '349. JP '349 merely teaches a developer including black titanium oxide (see JP '349 at paragraph [0017]).

Furthermore, the claimed invention is directed to an electrophotographic toner that may be a black toner using a titanium compound/magnetic iron oxide containing no carbon black as a colorant. It is one of the features of the invention to provide an electrophotographic toner and an image forming apparatus which have characteristics substantially equivalent to those of the related art toner in terms of colorability, fixing characteristic, image stability, etc. and which considers the environment and safety.

JP'349 is directed to a one-component magnetic developer that uses a titanium oxide. However, JP'349 fails to disclose a stability characteristic in low temperature and that is conscious of environmental care.

Moreover, regarding claim 3, JP '349 does not teach or suggest "*wherein said titanium compound exhibits oil absorption of not higher than 80 ml/100 g and has a BET specific surface area of not larger than 100 m²/g*". Indeed, the Examiner merely states that "[t]he physical properties would be the same for all titanium oxide" (see Office Action dated April 11, 2005 at page 2, numbered paragraph 2).

The Examiner, however, is clearly incorrect. The claimed invention of claim 3 recites a titanium compound having specific properties. Not every titanium containing compound will have the same properties as the titanium oxide taught in JP '349.

Furthermore, Applicants have discovered particular features that provide specific

results for the claimed invention. That is, Applicants have discovered that the fixing characteristic of the toner is spoiled if the oil absorption is higher than 80 ml/100g and if the BET specific surface area is larger than 100 m²/g (see Application at page 8, lines 1-11). This feature is not taught or suggested by JP '349, nor are the benefits of the features recognized by JP '349.

Furthermore, regarding claims 12 and 13, nowhere does JP '349 teach or suggest "*an image-forming system*". That is, JP '349 is merely directed to a developer including black titanium oxide powder. However, JP '349 does not even mention an image-forming system, let alone teach or suggest the image-forming system recited in exemplary claims 12 and 13.

Therefore, Applicants submit that JP '349 does not teach or suggest each and every feature of the claimed invention. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

B. The JP '063 Reference

The Examiner alleges that JP '063 teaches the claimed invention of claims 7, 9, 11, 14 and 15. Applicants submit, however, that JP '063 does not teach or suggest each and every feature of the claimed invention.

That is, JP '063 does not teach or suggest "*wherein said electrophotographic toner comprises a black toner using a titanium compound comprising no carbon black as said colorant*" as recited in claim 7. Additionally, JP '063 does not teach or suggest "*wherein said electrophotographic toner comprises an electrophotographic two-component black toner using magnetic iron oxide containing no carbon black as said colorant*" as recited in claim 14.

The Examiner does not specifically point out which portions of JP '063 he is relying upon to support his allegation. Instead, the Examiner merely refers to the entire disclosure of JP '063. The Examiner, however, is clearly incorrect.

That is, nowhere does JP '063 teach or suggest that the electrophotographic toner includes a black toner using a titanium compound including no carbon black as the colorant. Indeed, the Examiner does not even allege that JP '063 teaches or suggests this feature. The Examiner merely alleges that JP '063 teaches using iron oxide as a black colorant.

In the case of a toner using a titanium compound or magnetic iron oxide as a colorant, electrostatic charge may be accumulated to increase the quantity of electrostatic charge. Carbon black has good electrically conductivity and has an effect of maintaining the stability of the electrostatic charge. However, Applicants have recognized that carbon black is not environmentally safe.

Thus, the claimed invention provides an electrophotographic toner including a black toner using a titanium compound including no carbon black as the colorant. The toner of the claimed invention provides colorability, fixing characteristic and stable printing equivalent to those obtained using a conventional toner having carbon black as a colorant (see Application at page 45, line 23 through page 46, line 4). This feature is clearly not taught or suggested by JP '063. JP '063 merely teaches a developer including iron oxide (see JP '063 at paragraph [0017]).

Furthermore, the claimed invention is directed to an electrophotographic toner that may be a black toner using a titanium compound/magnetic iron oxide containing no carbon black as a colorant. It is one of the features of the invention to provide an electrophotographic toner and an image forming apparatus which have characteristics

those of the related art toner in terms of colorability, fixing characteristic, image stability, etc. and which considers the environment and safety.

JP '063 is directed to a composition of toner that is limited to a titanium oxide iron compound. Further, the reference only discloses ideas. The Examples in JP '063 only disclose a manufacturing process and coating compositions.

Furthermore, regarding claims 14 and 15, nowhere does JP '063 teach or suggest “*an image-forming system*”. That is, JP '063 is merely directed to a low magnetic black pigment powder. However, JP '063 does not even mention an image-forming system, let alone teach or suggest the image-forming system recited in exemplary claims 14 and 15.

Therefore, Applicants submit that JP '063 does not teach or suggest each and every feature of the claimed invention. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

III. NEW CLAIMS

New claims 16-20 are added to provide more varied protection for the claimed invention and to claim additional features of the invention. These claims are independently patentable because of the novel features recited therein.

Applicants submit that new claims 16-20 are patentable over any combination of the applied references at least for analogous reasons to those set forth above with respect to claims 1-15.

IV. CONCLUSION

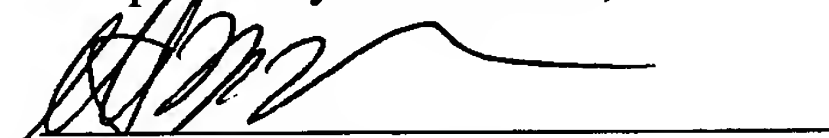
In view of the foregoing, Applicants submit that claims 1-20, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Date: July 8, 2005

Respectfully Submitted,



Scott M. Tulino, Esq.
Registration No. 48,317

Sean M. McGinn, Esq.
Registration No. 34,386

McGinn & Gibb, PLLC
8321 Old Courthouse Road, Suite 200
Vienna, VA 22182-3817
(703) 761-4100
Customer No. 21254